

REMARKS

Claims 1-3, 8, 9 and 18 are pending in the subject application and are addressed in the office action (claims 4-7, 10-17 and 19 -24 having been withdrawn from consideration following the previously imposed restriction requirement). Claims 1-3, 8, 9 and 18 stand rejected under 35 U.S.C. §103. Claims 25-28 have been added. No new matter has been added.

Claims 1-3, 8, 9 and 18 stand rejected under 35 U.S.C. §103(a) as allegedly being obvious over Rorison et al. (Great Britain Patent GB 2,344,691) in combination with Krohn et al. (U.S. Patent Application No. 2003/0022957).

Rorison et al. disclose a method of producing an electroluminescent ("EL") element having an emissive layer in which emissive molecules are aligned in a particular direction. The method includes the steps of suspending the emissive molecules in a fluid matrix, orienting the emissive molecules in a particular direction, and fixing the fluid matrix so that the emissive molecules are no longer able to move within the matrix. (Rorison et al. at page 12, lines 15-24). Rorison et al. further disclose that selected parts of the fluid matrix can be "fixed" by using a mask. (Rorison et al. at page 12, lines 26- 30). In addition, Rorison et al. disclose cross linking the emitter materials using polarized UV light to give a uniform alignment direction. (Rorison et al. at page 16, lines 4 and 5).

Krohn et al. discloses an EL device made by depositing an EL composition on a substrate between two conductive layers and curing the composition to form an EL active layer. The EL composition comprises a light active material and a monomer. (Krohn et al. at paragraphs [0190] to [0193]).

The Examiner states that "Rorison discloses a method of making a polarized EL device, wherein the light active materials can be cross-linked (pg. 16, 1st full paragraph)." Office Action page 2, paragraph 4. The Examiner concedes that "Rorison does not explicitly teach cross-linking a monomer from a mixture of a monomer and a light active material. Office Action page 2, paragraph 5. However, the Examiner alleges that, based on Krohn et al., "it is well known in the EL art to use a mixture of a monomer and the light active material in the process of making a cross-linked EL layer." Office Action page 2, paragraph 5. The Examiner also alleges that

“upon polymerization, the EL composition will comprise concentration regions (i.e., first regions) containing the light active material and concentration regions (i.e., second regions) containing the polymer because neither Rorison nor Krohn teach that the materials chemically react before or after curing.” Office Action page 2, paragraph 6 and page 3, paragraph 1.

The Applicant respectfully disagrees with the Examiner's characterization of Rorison et al. Unlike Applicant's claim 1, Rorison et al. do not disclose, *inter alia*, “providing a polymer in a second region, the polymer being formed by selectively cross-linking a monomer.” Instead, Rorison et al. disclose cross-linking *emitter materials*. (Rorison et al. at page 16, lines 4 and 5). Moreover, Rorison et al. disclose cross-linking for giving a uniform alignment *direction* (Rorison et al. at page 16, lines 4 and 5), rather than disclosing any effect on the *concentration* of the light active material or the polymer. Therefore, Rorison et al. fail to disclose an element of claim 1.

Moreover, Applicant disagrees with the Examiner's characterization of Krohn et al. For example, unlike claim 1 of the present application, Krohn et al. do not disclose, *inter alia*,

“A method for making a light active device, comprising: providing a light active material in a first region; and providing a polymer in a second region, the polymer being formed by selectively cross-linking a monomer from a mixture containing the monomer and the light active material causing a concentration of the light active material at the first region and a concentration of the polymer at the second region.”

Instead, Krohn et al. disclose a multi-step method for preparing an EL lamp wherein successive compositions are applied to a substrate and subsequently cured by irradiation to form layers of the EL lamp. The method includes the steps of screen printing the EL composition onto a conductive layer and a subsequent step of curing the EL composition by irradiation to form an EL layer. Krohn et al. at paragraphs [0265] to [0269]. In addition Krohn et al. disclose:

“The compositions may be applied, for example, by direct brush application, or it may be sprayed onto the substrate surface. It also may be applied using a screen printing technique. In such screen printing technique, a “screen” as the term is used in the screen printing industry is used to regulate the flow of liquid composition onto the substrate surface. The compositions typically would be applied to the screen as the latter contacts the substrate. The composition flows

through the silk screen to the substrate, whereupon it adheres to the substrate at the desired film thickness.” (Krohn et al. at paragraph [0185]).

Based on the foregoing, it is clear that Krohn et al. teach away from, inter alia, “selective cross-linking causing a concentration of the light active material at the first region and a concentration of the polymer at the second region,” as recited in claim 1.

The Applicant respectfully points out that a failure of an electroluminescent composition to react before or after curing is not the same as selectively cross-linking the monomer and nowhere do Krohn et al. expressly disclose selectively cross-linking the monomer in the EL composition. Nor has the Examiner provided any evidence that the monomer in Krohn et al.’s EL composition will inherently be selectively cross-linked to form concentrated regions of light active material. Based on the above, Krohn et al. do not cure the deficiencies of Rorison et al.

In addition, the Examiner’s proposed modification of Rorison et al., in consideration of the teachings of Krohn et al. would change an important characteristic of the method of Rorison et al. In particular, the method of Rorison et al. disclose cross-linking the emitter materials utilizing UV light to “give a uniform alignment direction.” (Rorison at page 16, 1st full paragraph). In contrast, Krohn discloses applying an electroluminescent composition comprising a monomer to a substrate followed by curing the electroluminescent composition using UV light. Krohn et al. at paragraphs [0265] to [0269]. However, neither reference teaches the necessary modification including the suitability of the Krohn et al. electroluminescent composition for cross-linking the emitter materials utilizing UV light to “give a uniform alignment direction.” Accordingly, the combination of Rorison et al. and Krohn et al. is improper.

The arguments presented above for claim 1 also apply to claim 9. Rorison et al. does not disclose, teach or suggest all the limitations of claims 1 and 9 and Krohn et al. fails to cure the deficiencies of Rorison et al. Thus, the applied references fail to disclose, teach or suggest, either individually or in combination, all of the limitations of claims 1 and 9. Accordingly, claims 1 and 9 are deemed allowable.

Since the independent claims are deemed allowable, the claims that depend from and further limit the independent claims are also deemed allowable. Therefore, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-3, 8, 9 and 18 under 35 U.S.C. §103(a) as allegedly being unpatentable over the proposed combination of Rorison et al. and Krohn et al.

Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Rorison et al. in combination with Krohn et al. and in further view of U.S. Published Patent Application No. 2001/0050746 to Song. Song is cited for supporting the Examiner's contention that it is well known in the art of display devices that an electric field can be applied using electrodes to align molecules between the electrodes. Nothing in Song cures the deficiencies of Rorison et al. and Krohn et al. with regard to the teaching of all the limitations of claim 9. Since claim 18 depends from claim 9, which is deemed allowable, claim 18 is also allowable. Accordingly, Applicant respectfully requests that the rejection of claim 18 be reconsidered and withdrawn.

As part of this Amendment and Reply, claims 25-28 are newly added. It is respectfully submitted that, at least in view of the arguments of record, the newly added claims are patentable over the cited documents.

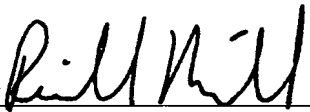
Support for the newly added claims may be found within the original disclosure. For example, support for claim 25 may be found at least at paragraphs [0074], [0075] and [0417]; support for claim 26 may be found at least at paragraphs [0048] and [0280]; support for claim 27 may be found at least at paragraphs [0048] and [0418]; and support for claim 28 may be found at least at paragraph [0419] of the Specification. Accordingly, no new matter is added.

In addition, claims 25-28 are similar to claims 1, 2, 3 and 8 which the Examiner has accepted, in the Office Action mailed July 20, 2006, as being readable on the subject matter of the Applicant's election made in response to the Restriction Requirement mailed April 24, 2006. As such, claims 25-28 are also readable on the elected subject matter.

Each of the stated grounds of rejection has been traversed. Accordingly, reexamination and reconsideration of the pending claims in view of the foregoing remarks is respectfully requested.

Enclosed is a check in the amount of \$200 for additional claims. Applicant believes that no further fees are due with this response. If it is determined that additional fees are due, they may be charged to Deposit Account No. 503342, maintained by the attorneys.

Respectfully submitted,

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